Reviewer’s report

Title: Adjuvant chemotherapy versus chemoradiotherapy for small cell lung cancer with lymph node metastasis: a retrospective observational study with use of a national database in Japan

Version: 0 Date: 27 Feb 2017

Reviewer: Grigoris Kotronoulas

Reviewer's report:

Thank you for the opportunity to review this manuscript that reports on a retrospective study of differences in recurrence-free survival between patients with SCLC (N1/2) treated with post-operative chemotherapy v. post-operative chemoradiotherapy. The authors conclude that adjuvant radiotherapy in the treatment of SCLC (N1/2) has no added clinical benefit in terms of recurrence-free survival based on absence of a significant between-groups difference. From a clinical standpoint, the difference does seem significant though, and I wondered whether the authors could make the clinical interpretation/implications more prominent in the paper. In the Discussion, the authors mention that "Our results suggest the dominance of surgery … in patients with limited-stage SCLC [9]." I am not sure (a) how the results of your study suggest the dominance of surgery and (b) how the Bonner et al. study on thoracic radiation twice daily v. once daily relate to your study. Please revise. I wonder whether the authors could include a post-hoc power calculation to further support their findings. My concern is that the chemoradiotherapy group comprised only 75 patients (compared with 489 patients in the chemotherapy group). Please discuss how this may represent a limitation for the study. Finally, the authors have adjusted survival analyses for demographic and clinical characteristics. Post-operative symptom severity/distress at the beginning of adjuvant treatment could be another factor to affect outcomes. Could the authors discuss the potential implications.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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